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EDITORIAL

We continue to make progress in the implementation of the Integrated Disease Surveillance and Response (IDSR) strategy. Strengthening data management, analysis and utilisation for action has been a key component of this strategy. Efforts done in improving data processing in Uganda are quite commendable. However, utilisation of the outputs should further be encouraged.

Proper laboratory confirmation of epidemic-potential diseases like typhoid fever continues to be a challenge and this should be addressed forthwith. On the whole, commendable progress has been achieved in the surveillance and response to disease outbreaks in the Great Lakes sub-region.

Dr. Oladapo Walker - WR Uganda

Data Management Software: *EpiInfo 2002 in use*

AN ASSESSMENT of the Health Management Information System (HMIS) at the Ministry of Health was conducted in February 2001. There was a computerised data management system at the MoH Resource Centre, designed in 1996 and based on Access 2.0 software. The main weaknesses with the system included:

- difficulties in linking outputs from this system to other data management software like EpiInfo for further data manipulation.
- the system was too much dependant on the developer's assistance since there was little capacity building given to MoH staff. On the other hand, development of the software had not been completed and therefore it occasionally hanged.
- some of the data tables had been protected with passwords and accessibility was somehow difficult.

However, the main strength of the computer system was the availability of some data for the period 1997 to year 2000 in the HMIS data bank.

In order to improve and strengthen the HMIS, WHO has supported the development of an alternative software (based on EpiInfo 2002) to facilitate efficient data processing and analysis at MoH. The main advantages of this software over the Access-based system include:

- It is easy to learn (and usually most health workers have simple knowledge on EpiInfo). Thus, it can easily be adopted at all levels of the health system.
- It is available in the public domain free of charge, both installation and upgrading.

- Other database programs (Access, Foxpro, Paradox, etc.) can easily be linked to EpiInfo thereby enabling all data analysts to process their data.
- EpiInfo 2002 runs in MS-Windows environment, therefore user-friendly to modern data management and analysis.

WHO has further provided considerable support in training MoH staff in using the EpiInfo software. The first programmes to benefit from this support included the HMIS/Resource Centre, Epidemiological Surveillance Division and UNEPI. Currently, databases have been updated and a number of outputs are regularly produced using the EpiInfo HMIS system e.g. Notifiable Disease Summaries, EPI Coverage Reports, Maternity Statistics, OPD Utilisation Reports, etc. These are disseminated to all stakeholders as a way of feedback through E-mail.

The main challenges include:

- meeting the demands of the users e.g. formats of the reports which EpiInfo may not support at the moment.
- scaling up use of the EpiInfo software to the lower levels of the health system i.e. districts/health sub-districts.

With further development of the software by CDC, it is hoped that all users' needs will be satisfied in the near future, especially with the development of a report-generator. However, more MoH staff need to master the EpiInfo software in order to improve data management and analysis, and be in position to transfer these skills to the lower levels.

Epidemic Disease Surveillance and Response

(Progress in the Great Lakes Countries)

IN THE GREAT LAKES REGION, epidemic potential diseases such as cholera, malaria, bacillary dysentery, meningococcal meningitis and measles have been spreading across and within countries without effective joint surveillance and response mechanisms. Facing these situations, countries agreed upon a strategy for strengthening surveillance and response mechanisms through a protocol signed in Kigali, Rwanda in August 1997. WHO Regional Office for Africa has accompanied this effort by establishment of inter-country teams and support to implementation of the Integrated Disease Surveillance and Response (IDSR) strategy.

In the last 4 years, joint efforts have been done at country and sub-regional levels in the area of epidemic disease surveillance and response, and in the implementation of IDSR. Specifically, in the second semester of 1998, disease surveillance reporting forms were designed and disseminated for use by the different countries. These were fully operational by the beginning of 1999. Twelve (12) diseases and conditions were agreed upon to be reported on a monthly basis and this information was shared among countries. This has been possible by the establishment of e-mail communication at the epidemiology departments in the Ministries-

of Health that made fast links with WHO Country Offices and Inter-country teams. Weekly reporting has been only possible during epidemics, except in Uganda where a routine weekly reporting system is in place and fully functional.

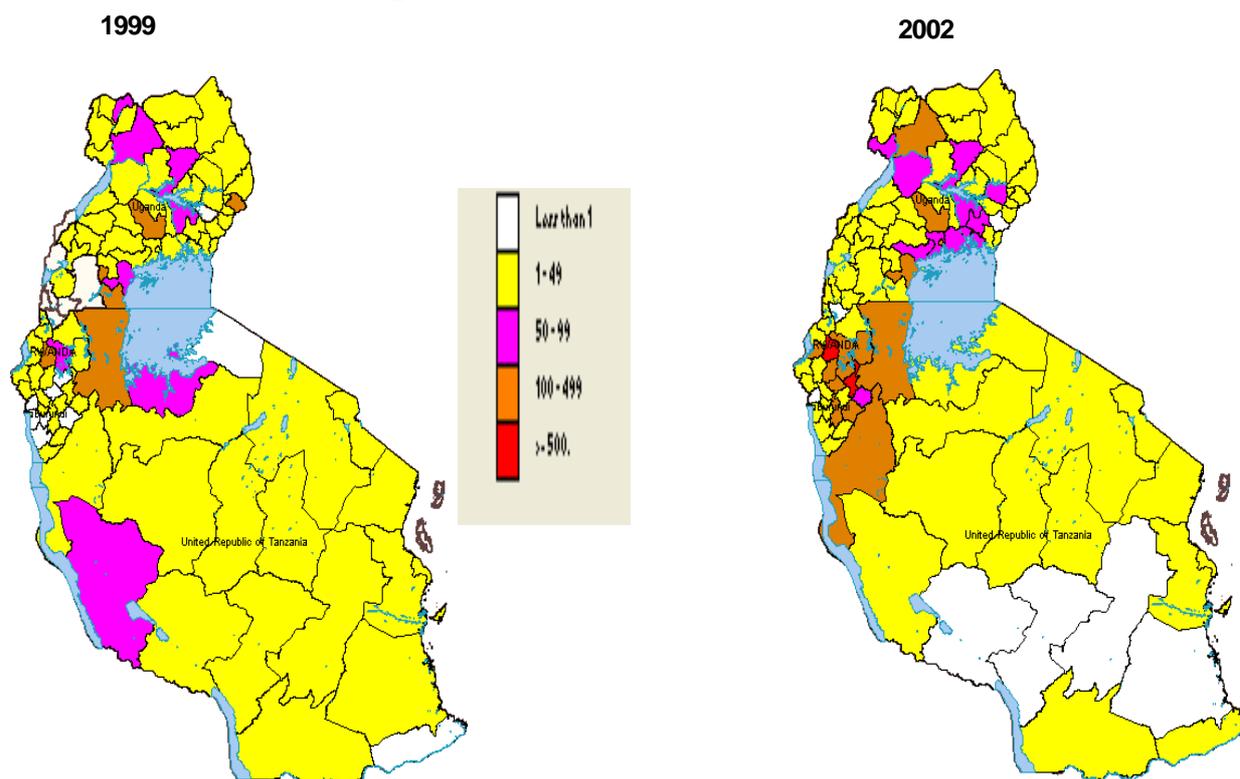
In the area of preparedness and response, cross-border meetings were organised to review the implementation of the annual plans of action and to develop work plans for the next year. Despite lack of resources to fully implement the plans, remarkable achievements have been registered in the area of epidemic response such as sharing cross-border information and resources (vaccines).

As examples for the epidemic disease surveillance and response, few diseases (cholera, meningitis and measles) are selected to provide a picture of the development in this domain.

Regarding cholera distribution, there has been a general improvement in surveillance, case management and control measures in some districts/provinces (see *volume 7*).

Concerning the distribution of meningitis cases across the districts/provinces, the number most affected in 2002 has risen three times compared to

Meningitis distribution in GL countries



Source: MoH

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1999 due to the huge meningitis epidemic that occurred mainly in Rwanda and Burundi in 2002. Apart from Tanzania, the overall incidence rate has highly increased in 2002 compared to 1999. The highest increase was observed in Burundi (0.5 - 21 per 100,000) and in Rwanda (4.8 - 23 per 100,000). This was due to the major outbreak that occurred in the second semester of 2002 in the two countries. In Uganda, there was a moderate increase from 6 to 9 per 100,000.

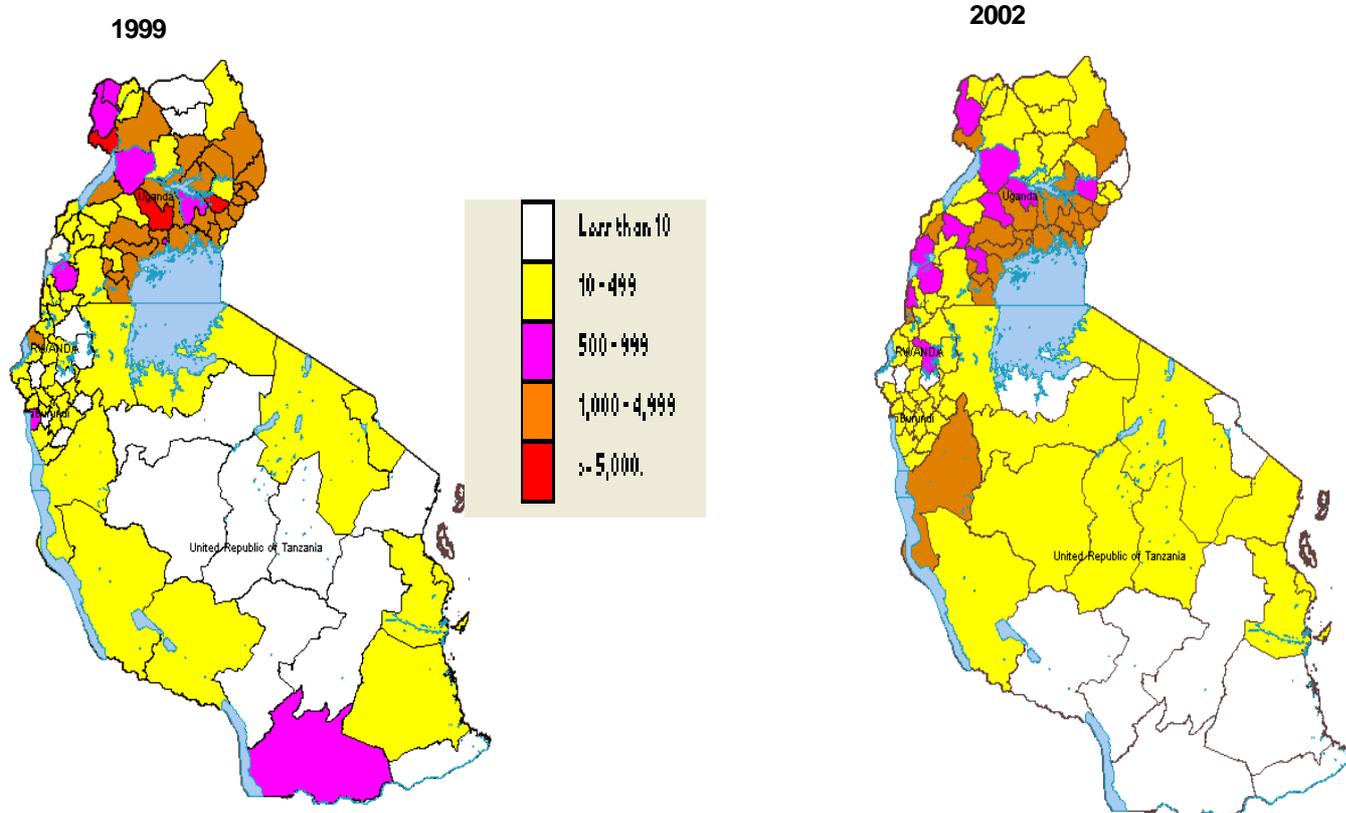
Considering measles distribution in comparison between districts/provinces in 1999 vis-a-vis 2002, there has been a slight improvement in terms of the number of districts/provinces most affected (more than 1,000 cases per year).

progress in IDSR. The last country to formally implement IDSR was Burundi in 2002. Due to high awareness on IDSR, the districts/provinces have improved the timeliness and completeness of reporting. In addition, there is more timely response to outbreaks by the districts/provinces and also timely technical support in response to outbreaks from the higher level to districts/provinces is provided. Currently, most of the countries are building capacity at district and lower levels in order to disseminate IDSR strategy in the health system.

Although significant progress has been made, there are still areas where more effort should be put.

These include emergency stocks, timeliness in re-

Measles distribution in GL countries



Source: MoH

On the laboratory aspect, the confirmation of epidemics is crucial and pre-conditioned by the availability of good lab services. In the last 2 years, efforts have been put in the establishment of lab networking between districts, national and regional levels (see volume No. 7). However, some epidemics are still unconfirmed at district level (for example meningitis cases and typhoid fever). More efforts should be put in to collect and send specimens to the next level where the capacity is available.

In the area of IDSR implementation, all the Great Lakes Countries are currently making significant

response, line budgets for epidemic management from governments, communication equipment and operational research. On the issue of emergency stocks, it has been observed that countries do not keep enough stock piles of drugs and other supplies to respond adequately to disease outbreaks. Therefore, it is prudent to address this gap by mobilising more resources and establishing a line budget. In order to improve data collection, analysis and reporting, it is crucial to establish proper communication between the districts and lower levels of the health system. Lastly, sustaining and focussing the interventions should be evidence-based through operational research and proper documentation. □